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first signaling link is established between said endpoint and said first gateway; and in response to a loss of said first signaling link, sending a lightweight registration request (RRQ) message to a second gateway." In addition to, base on 35 U.S.C.101, the Supreme Court has specifically identified four categories of non-statutory subject matter: which are process, machine, manufacture, composition of matter. In this instant case, claim 15 is classified as being functional descriptive material. Similarly, computer programs claimed as computer listings per se, the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permits the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 9,12,13,14,15 are rejected under 35 U.S.C. 102 (b) as being anticipated by Sengodan (US 6,490,275)

Referring to claim 8, Sengodan discloses a communication system, comprising: a first communication endpoint, operable to at least one of receive data from and provide data to an Internet protocol network (Abstract lines 2-14); a first gatekeeper, operable to control aspects of operation of a communication endpoint in communication with said first gatekeeper (Col.4 lines 15-17), a first communication link between said first communication endpoint and said first gatekeeper (Col.6, Fig.2 lines 50-58); a second gatekeeper, operable to control aspects of operation of a communication endpoint in communication with said gatekeeper ( Col. 4 lines 33-37); and a second communication link between said first communication endpoint and said second communication gatekeeper( Col.7 Fig. 3 lines 41-49), wherein said second communication link is established after said first communication link is lost and after an exchange of a lightweight RRQ message and RCF message between said first communication endpoint and said second communication gatekeeper ( Col. 6 lines 61-65) and (Col.7 lines 29-35).

Referring to claim 9, Sengodan discloses all the limitations of claim 9, which is described above. Sengodan also discloses a second communication endpoint; and a third

communication link, wherein said third communication link is established between said first and second communication endpoints (Col. 7 Fig 3 lines 41-49).

Referring to claim 12, Sengodan discloses al the limitations of claim 12, which is described above. Sengodan also discloses wherein said first communication endpoint comprises a gateway (Col. 7 lines 60-67).

Referring to claim 13, Sengodan discloses al the limitations of claim 13, which is described above. Sengodan also discloses wherein said first communication endpoint comprises a first gateway and at least a first telephony device interconnected to said gateway (Col.2 lines 55-60).

Referring to claim 14, Sengodan discloses al the limitations of claim 14, which is described above. Sengodan also discloses wherein said first communication endpoint (Col. 3 lines 56-60) comprises memory operable to store an address of said second communication gatekeeper. (Col. 6 lines 65-67).

Claim 15?

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1,2, 5,6,7,10,11 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Sengodan (US 6,490,275) in view of Cisco Systems.

Referring to claim 1, Sengodan discloses a method for re-establishing an IP protocol call signaling channel, comprising: establishing a first call signaling channel between a first communication endpoint and a first gatekeeper (Col.3 lines 56-81); and in response to receiving a registration confirmation message from said second gatekeeper (Col.4 lines 15-17), establishing a second call signaling channel with said second gatekeeper (Col.4 lines 51-57). Sengodan did not disclose "in response to losing said established first call signaling channel, sending a keep alive message to a second gatekeeper." The general concept of having a "in response to losing said established first call signaling channel, sending a keep alive message to a second keeper" is well known in the art as taught by Cisco Systems discloses in response to losing said established first call signaling channel, sending a keep alive message to a second gatekeeper (Pg.4 1- 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention to include "in response to losing said established first call signaling channel, sending a keep alive message to a second keeper" in order to refresh the existing registration.

Referring to claim 2, Sengodan discloses all the limitations of claim 2 which are described above except for wherein said keep alive message comprises a lightweight registration request. The general concept of a keep alive message comprising a lightweight registration request is well known in the art as taught by Cisco. Cisco discloses a keep alive message comprising a lightweight registration request (Pg. 4 lines 1-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sengodan to include a keep alive message weight lightweight registration request in order to refresh the existing registration.

Referring to claim 5, Sengodan and Cisco Systems disclose all the limitations of claim 5 which is described above. Sengodan also discloses establishing a bearer channel between said first communication endpoint and a second communication endpoint (Col. 4 lines 9-14), wherein said call signaling channel carries data related at one of control of features associated with data transferred between said first and second communication endpoints by said bearer channel (Col. 4 lines 38-44).

Referring to claim 6, Sengodan and Cisco Systems discloses all the limitations of claim 6 which is described above. Sengodan also discloses "wherein said communication endpoint comprises a telephony device." (Col. 2 lines 41-50).

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Referring to claim 7, Sengodan and Cisco Systems discloses all the limitations of claim 7 which is described above. Sengodan also discloses "wherein said call signaling channel is established according to an ITU-T H. 323 protocol" (Col.2 lines 45-54).

Referring to claim 10, Sengodan and Cisco Systems discloses all the limitations of claim 10 which is described above. Sengodan also discloses "wherein said first communication endpoint comprises a telephony device." (Col. 2 lines 41-50).

Referring to claim 11, Sengodan and Cisco Systems discloses al the limitations of claim 11, which is described above. Sengodan also discloses wherein said telephony device comprises at least one of an IP telephone, a soft telephone, a videophone, and a soft videophone (Col. 2 lines 1-3 and lines 10-20).

*this was  
in the 102?*

8. Claims 3, 15, 16, 17, 18, 19, 20, 21 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Sengodan (US 6,490,275) in view of Cisco Systems further in view of Korpi (US 6,785,223).

Referring to claim 3, Sengodan and Cisco Systems discloses all the limitations of claim 3 which are described above. Sengodan also discloses establishing a call signaling channel comprises establishing a call signaling channel with a one of said alternate

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gatekeepers (Col. 4 lines 33-37). Sengodan did not disclose the limitations of sending keep alive message to an alternate gatekeeper in response to losing said established first call signaling channel comprises sending keep alive message to a plurality of alternate gatekeepers. The general concept of having the limitation of sending keep alive message to an alternate gatekeeper in response to losing said established first call signaling channel comprises sending keep alive message to a plurality of alternate gatekeepers is taught by Korpi. Korpi discloses the limitations of sending keep alive message to an alternate gatekeeper in response to losing said established first call signaling channel comprises sending keep alive message to a plurality of alternate gatekeepers (Col. 1 lines 37-43) and (Col. 2 lines 20 -25). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sengodan to include the limitations sending keep alive message to an alternate gatekeeper in response to losing said established first call signaling channel comprises sending keep alive message to a plurality of alternate gatekeepers in order to recover from the gatekeeper restarts.

Referring to claim 15, Sengodan discloses the limitations of a computational component for performing a method, the method comprising: Registering an endpoint with a first gateway (Col. 4 lines 15-17), wherein a first signaling link is established between said endpoint and said first gateway (Col. 4 lines 33-35); sending a lightweight registration request (RRQ) message to a second gateway (Col. 6 lines 60-67).

Sengodan did not disclose “in response to a loss of said first signaling link”. The general concept of having the limitation of in response to a loss of said first signaling link is taught by Korpi. Korpi discloses the limitation of in response to a loss of said first signaling link (Col. 1 lines 37 –43). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sengodan to include the limitation of in response to a loss of said first signaling link in order to recover from the gatekeeper restarts.

Referring to claim 16, Sengodan and Korpi disclose all the limitations of claim 16 which is described above. Sengodan also discloses in response to receiving a registration confirmation message from said second gateway (Col. 6 lines 63-65), establishing a second signaling like between said endpoint and said second gateway (Col. 4 lines 33-35)

Referring to claim 17, Sengodan and Korpi disclose all the limitations of claim 17 which is described above. Sengodan also discloses in response to receiving a registration rejection message (Col. 7 lines 30 –35), sending a lightweight RRQ message to a third gateway (Col. 6 lines 60-67).

Referring to claim 18, Sengodan and Korpi disclose all the limitations of claim 18 which is described above. Sengodan also discloses sending a lightweight RRQ message to a gateway (Col.6 lines 60-67).



Referring to claim 20, Sengodan and Korpi disclose all the limitations of claim 20 which is described above. Sengodan also discloses wherein said computational component comprises a logic circuit (Col. 1 lines 64-67 and Col. lines 1-4).

Claim 19 is likewise rejected using the same reasoning and citations for claim 15 since they recite identical limitations and are distinguished only by statutory category.

Referring to claim 21, Sengodan discloses a communication system endpoint, comprising: means for communicating with means for controlling aspects of an exchange of data between said communication system endpoint and a second communication system endpoint (Col. 3 lines 56-63); and means for interconnecting said at least a first communication endpoint means and said means for controlling (Col.4 lines 56-63). means for generating a lightweight RRQ message (Col.6 lines 60-65); Sengodan did not discloses the limitations of "in response to a loss of a communication link between said means for communicating and said means for controlling". The general concept of response to a loss of communication link between means for communicating and said means for controlling is well known in the art as taught by Korpi. Korpi discloses the limitations of response to a loss of communication link between means for communicating and said means for controlling (Abstract lines 1-12). It would have been obvious to one of ordinary skill in the art at the time of the

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invention to modify Sengodan to include response to a loss of communication link between means for communicating and said means for controlling in order to refresh the existing registration.

*Parent Claim 21 was rejected under Sengodan, Cisco and Korpi*

8. Claims 22, 23 are rejected under 35 U.S.C. 103 (a) as being unpatentable over

Sengodan (US 6,490,275) in view of Korpi (US 6,785,223) further in view of Katz (US 2004/0086101).

*Where  
is  
Cisco?*

Referring to claim 22, Sengodan and Korpi discloses the limitations of claim 22 which is described above. Sengodan also discloses generating addresses said lightweight RRQ message to a one of said alternate means for controlling (Col. 6 lines 60-67). Sengodan did not discloses the limitations of 'means for storing a list of alternate means for controlling'. The general concept of "means for storing a list of alternate means of controlling" is taught by Katz. Katz discloses means for storing a list of alternate means of controlling (Pg. 2 [0019] lines 47-53). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sengodan to include the limitations of "means for storing a list of alternate means of controlling" as taught by Katz in order to control and monitor the call signal.

Claim 23 is likewise rejected using the same reasoning and citations for claim 22 since they recite identical limitations.

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Claim 4 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Sengodan (US 6,490,275) in view of Cisco Systems further in view of Patel (US 6,400,950 B1).

Referring to claim 4, Sengodan and Cisco discloses all the limitations of claim 4 which is described above except for "in response to receiving no registration confirmation message from said alternate gatekeeper within a first time period re-registering with a gatekeeper." The general concept of having receiving no registration confirmation message from said alternate gatekeeper within a first time period re-registering with a gatekeeper is taught by Patel. Patel discloses a receiving no registration confirmation message from said alternate gatekeeper within a first time period re-registering with a gatekeeper (Col.5 lines 55-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sengodan to include a receiving no registration confirmation message from said alternate gatekeeper within a first time period re-registering with a gatekeeper in order to determine where to route the call.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashley d. Turner whose telephone number is 571-270-1603. The examiner can normally be reached on Monday thru Friday 7:30a.m. - 5:00p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached at 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-270-2603.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patent Examiner:

Ashley Turner  
Ashley Turner

Date: 6/11/07

Supervisory Patent Examiner

\_\_\_\_\_  
Nathan Flynn

Date: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claims 3, 17, 18, 22, 23, are objected to because of the following informalities:

In claim 3 line 4 "a keep alive message" should be replaced by –the keep alive message — in order to improve the clarity of the claim language.

In claim 17 line 2 " a lightweight RRQ message" should be replaced by – the lightweight RRQ message --- in order to improve the clarity of the claim language.

In claim 18 line 2 " a lightweight RRQ message" should be replaced by – the lightweight RRQ message --- in order to improve the clarity of the claim language.

In claim 22 line 2 applicant should remove "said" from "said means for generating addresses" in order to improve the clarity of the claim language.

In claim 23 line 3 " a lightweight RRQ message" should be replaced by – said lightweight RRQ message --- in order to improve the clarity of the claim language.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

012/03

Voice over IP?

1  
2 3 4 5 6 7

402107-A-01-US

4366-121

What is claimed is:

✓ Sen 1

A method for re-establishing an IP protocol call signaling channel,  
comprising:

establishing a first call signaling channel between a first communication endpoint  
and a first gatekeeper;

5 ~~in response to losing said established first call signaling channel, sending a keep~~  
alive message to a second gatekeeper; and  
Controlling this 25.

in response to receiving a registration confirmation message from said second  
gatekeeper, establishing a second call signaling channel with said second gatekeeper.

MN  
to HA  
from to FA  
& send  
registration  
request

✓ Sen 2

The method of Claim 1, wherein said keep alive message comprises a  
lightweight registration request.

receive response  
from FA +  
establish connection

✓ Sen 3

3. The method of Claim 1, wherein said step of sending keep alive message  
to an alternate gatekeeper in response to losing said established first call signaling  
channel comprises sending keep alive message to a plurality of alternate gatekeepers, and  
wherein said step of establishing a call signaling channel comprises establishing a call  
5 signaling channel with a one of said alternate gatekeepers.

✓

4. The method of Claim 1, further comprising:

in response to receiving no registration confirmation message from said alternate  
gatekeeper within a first time period, re-registering with a gatekeeper.

error H.A.2

H.A.2

timed

process  
happens in  
a time period

✓ 5. (13)

The method of Claim 1, further comprising establishing a bearer channel between said first communication endpoint and a second communication endpoint, wherein said call signaling channel carries data related to at least one of control of and features associated with data transferred between said first and second communication endpoints by said bearer channel.

✓ 6. 5. (13)

The method of Claim 1, wherein said communication endpoint comprises a telephony device.

✓ 7. (13)

The method of Claim 1, wherein said call signaling channel is established according to an ITU-T H.323 protocol.

M.N. ⇒ F.A.

- 9 ✓ 8. <sup>ser</sup> A communication system, comprising:
- a first communication endpoint, operable to at least one of receive data from and provide data to an Internet protocol network; - M.N.
  - a first gatekeeper, operable to control aspects of operation of a communication endpoint in communication with said first gatekeeper; - H.A.
  - a first communication link between said first communication endpoint and said first gatekeeper; - F.A.
  - a second gatekeeper, operable to control aspects of operation of a communication endpoint in communication with said second gatekeeper; and
  - a second communication link between said first communication endpoint and said second communication gatekeeper, wherein said second communication link is established after said first communication link is lost and after an exchange of a lightweight RRQ message and an RCF message between said first communication endpoint and said second communication gatekeeper. M.N. → F.A.

9. <sup>ser</sup> The system of Claim 8, further comprising:
- a second communication endpoint; and H.A.2
  - a third communication link, wherein said third communication link is established between said first and second communication endpoints. M.N. ↔ H.A.2

10. <sup>ser</sup> The system of Claim 8, wherein said first communication endpoint comprises a telephony device.



✓ 15. A computational component for performing a method, the method comprising:

registering an endpoint with a first gateway, wherein a first signaling link is established between said endpoint and said first gateway; and

5 in response to a loss of said first signaling link, sending a lightweight registration request (RRQ) message to a second gateway.

✓ 16. The method of Claim 15, further comprising:

in response to receiving a registration confirmation message from said second gateway, establishing a second signaling link between said endpoint and said second gateway.

✓ 17. The method of Claim 15, further comprising:

in response to receiving a registration rejection message, sending a lightweight RRQ message to a third gateway.

✓ 18. The method of Claim 15, further comprising:

sending a lightweight RRQ message to a third gateway.

✓ 19. The method of Claim 15, wherein said computational component

comprises a computer-readable storage medium containing instructions for performing the method.

✓ 11. The system of Claim 10, wherein said telephony device comprises at least one of an IP telephone, a soft telephone, a videophone, and a soft videophone.

✓ 12. <sup>Sen</sup> The system of claim 8, wherein said first communication endpoint comprises a gateway. -HA./F.A./KA2

✓ 13. <sup>Sen</sup> The system of Claim 8, wherein said first communication endpoint comprises a first gateway and at least a first telephony device interconnected to said gateway.

✓ 14. <sup>Sen</sup> The system of Claim 8, wherein said first communication endpoint comprises memory operable to store an address of said second communication gatekeeper.

MN connecting to F.A. from gatekeeper messages

M.N.  
MN is operable connect to gatekeeper

21. A communication system endpoint, comprising:

means for communicating with means for controlling aspects of an exchange of data between said communication system endpoint and a second communication system endpoint;

5 means for generating a lightweight RRQ message in response to a loss of a communication link between said means for communicating and said means for controlling; and

means for interconnecting said at least a first communication endpoint means and said means for controlling.

22. The communication system endpoint of Claim 21, further comprising:

means for storing a list of alternate means for controlling, wherein said means for generating addresses said lightweight RRQ message to a one of said alternate means for controlling.

23. The communication system of Claim 21, further comprising:

means for storing a list of alternate means for controlling, wherein said means for generating addresses a lightweight RRQ message to a plurality of said alternate means for controlling.

✓ 20. The method of Claim 15, wherein said computational component comprises a logic circuit.